# **Appendix II**

# **FEMA's Fire Hazard Severity Forms**

The Federal Emergency Management Agency has developed a number of guides and procedures to assist communities, counties, and states with assessing risk for a variety of natural hazards, including wildfire. One approach that FEMA recommends is to assess communities using a variety of standardized evaluation criteria. The forms on the following pages detail the assessments completed for the communities within Payette County that have been listed on the Federal Register of Communities at Risk, using these standardized forms and their criteria.

The first evaluation completed for these communities is the **Fire Hazard Severity** determination. This form uses a variety of criteria in order to make a categorical ranking for each community. The Fire Hazard Severity Table (below) determines fire hazard severity based on the standard FEMA uses to compare (for example) Payette County, Idaho, with another county in Idaho, or any other state. Communities may have more than one classification depending on the degrees of the slope and fuel models. For example, if someone were to observe an average of five critical fire weather days per year in a given area, observe heavy fuel, and less than 40° slopes, then that community is in a high fire hazard area. If the average number of days of critical fire weather per year increases above eight, that community would be in an extreme fire hazard area. The table is subjective, but allows comparisons between communities.

#### Fire Hazard Severity

	Critical Fire Weather Frequency								
	< 1 Day/Year		2 to 7 Days/Year			> 8 Days/Year			
	Slope (%)			Slope (%)			Slope (%)		
Fuel Classification	< 40	41-60	> 61	< 40	41-60	> 61	< 40	41-60	> 61
Light Fuel	М	М	М	М	М	М	М	М	Н
Medium Fuel	М	М	Н	Н	Н	Н	Е	Е	Е
Heavy Fuel	Н	Н	Н	Н	Е	E	Е	Е	E

Source: Urban Wildland Interface Code: 2000

M = Moderate hazard H = High hazard E = Extreme hazard

(from FEMA's "Understanding Your Risks; identifying hazards and estimating losses", August 2001, FEMA 386-2) State and local mitigation planning how-to-guide.)

Critical Fire Weather Frequency (CFWF) is not recorded by agencies operating in the state of Idaho. Red Flag Warnings posted by the US Forest Service and other agencies is roughly analogous to the CFWF but not identical. Daily readings from weather service stations was accessed to determine a county wide ranking of "> 8 days per year" average. In any given year, the actual number of days observed may be more or less.

Slope was determined from an interactive GIS layer by creating a polygon around a community representing the area that most likely encompasses the immediate threat area to the community from a wildfire. The average slope for that polygon was calculated along with statistics on this

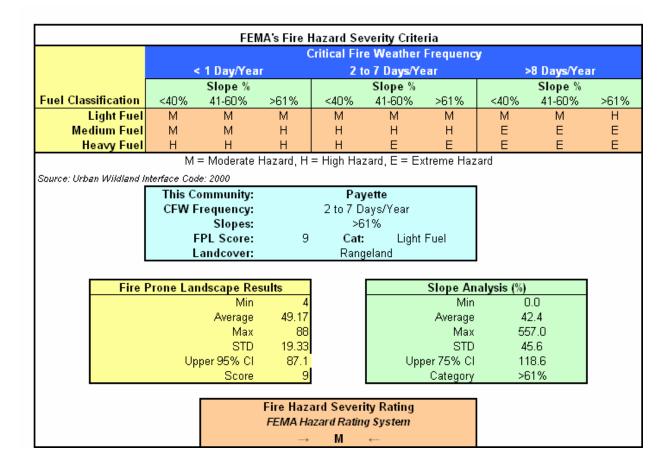
average. Using recommendations from FEMA publications, the steepest 75% of the region was used to represent the slope impact on wildfires. For this reason, the category for slope will generally appear to be steeper than observations on the ground might otherwise indicate.

Fuel classification was determined from the Fire Prone Landscapes assessment described in the Plan. This assessment created data ranked from 0 (low) to 100 (high). As was done with the slope calculation, fire prone landscapes scores were averaged for the impact area and statistics were determined for the amount of variation. The highest 95% of values were used to calculate the impact of fuels on wildland fires around communities. Resulting values were divided by 10 to create a scale from 1 to 10 for this analysis. These values (0-10) were used in combination with the ground cover (rangeland or forestland) to assign light, medium, and high categories. Light fuels were assigned to rangeland areas regardless of the Fire Prone Landscape rating. Medium fuels were forestland cover types with a Fire Prone Landscapes ranking from 0 to 5, with Heavy fuels assigned to forestlands with a score of 6 and higher.

A final classification was selected based on this information with the lowest category on the form Moderate, then to High and finally Extreme. The FEMA forms do not have a category for Low. This score was then reported on the header of the Wildfire Hazard Rating Form.

The **Wildfire Hazard Rating Form** differs from the **Fire Hazard Severity** form in that the latter describes the environmental factors potentially affecting a community or subdivision, while the former describes actual factors leading to the ability of residents and emergency service personnel to respond to the event of a wildfire. The Wildfire Hazard Rating Form is competed using subjective observations of a community. These ratings will change over time and should be updated as needed to better reflect changes in each community.

### **Payette**

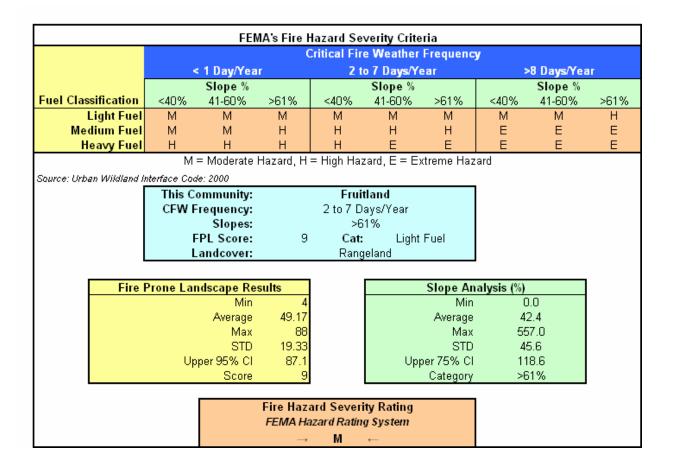


### Wildfire Hazard Rating Form Payette County, Idaho Fire Mitigation Plan

- <del></del>	ette		: 12-Jan-04	
Landcover: Rangeland	_	GPS Point Name		
WUI Condition: Rural		Data with Eine Hannel Countries Made at a	11	
Overall Wildfire Hazard Rating: Low Hazard		Potential Fire Hazard Severity: Moderate Hazard ith majority of community surrounded by agricultural land.		
Very little direct threat to community with the			urai iariu.	
very little direct tilleat to community with the	e exception of a lev		lomik	
	Points	Evaluator: 7	Points	
A. Community Design		C. Topography		
1. Ingress / Egress		1. Predominant Slope		
Three or more primary roads1		≤ 8%1		
Two or more primary roads2	2	> 8% ≤ 20%4		
One Road3		> 20% ≤ 30%7 > 30%10	4	
One-way-in, one-way-out5		> 30%10		
2. Width of Primary roads		D. Roofing Material		
20 feet or more1	1	Class A Rated1		
20 feet or less3		Class B Rated3	3	
		Class C Rated5		
3. Accessibility		Non-Rated Roofing material10		
Road grade 5% or less1		E Fire Brotostian Water Source		
Road grade 5% or more3	2	E. Fire Protection - Water Source		
Road grade 10% or more5		500 GPM Hydrant within 1,000'1 Hydrant farther than 1,000' or		
4. Secondary Road Terminus		draft site2	3	
Loop roads, cul-de-sacs with		Water Source within 20 minutes or		
outside turning radius of 45 feet		less, round trip5		
or greater1	2	Water source farther than 20		
Cul-de-sac turnaround radius		minutes, but less than 45 minutes7		
is less than 45 feet2		Water source farther than 45		
Dead-end roads 200 feet or less in length3		minutes round trip10		
Dead-end roads greater		F. Existing Building Construction M	laterials	
than 200 feet long5		Non-combustible siding/deck1	iatoriaio	
than 200 lest longo		Non-combustible siding		
5. Average lot size		BUT a combustable deck5	5	
10 acres or larger1		Combustible siding and deck10		
≥ 1 acre, < 10 acres3	3			
≤ 1 acre5		G. Utilities		
C. Sturet Simo		All underground utilities1	3	
Street Signs     Signs with names and numbers1		One underground, one above ground3 All above ground5		
Signs with names present2	2	r in above ground		
No Street Signs5		H. Fire Protection Services		
		Good Rural Department Coverage1	3	
B. Vegetation		Limited Rural Department Coverage5		
Fire Prone Landscape Rating		No Rural Department Coverage10		
1 - 10 scale 1-10	9			
2. Defensible Space		Total Score For Community	43	
70% or more of site1				
≥ 30%, ≤ 70%3	1	Rating Scale Moderate Hazard	d 45-65	
≤ 30% of site5		High Hazar		
		Extreme Hazar	4 80+	

Source: Urban Wildland Interface Code 2000, FEMA, version 1.0 August 2001 with modification by Northwest Management, Inc.

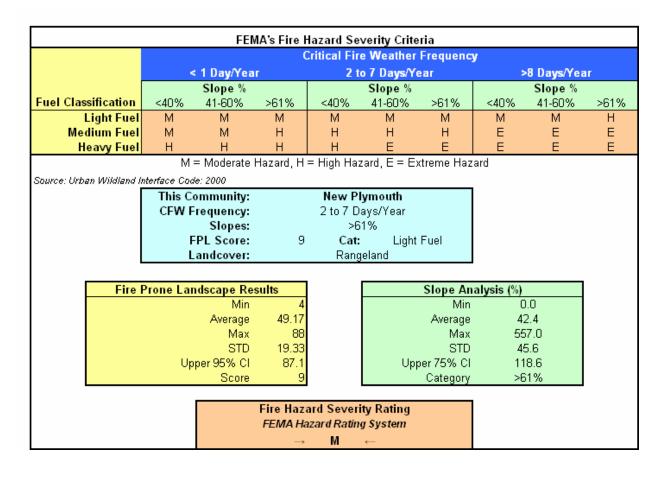
#### Fruitland



#### Wildfire Hazard Rating Form Payette County, Idaho Fire Mitigation Plan

	1 II C MILIGAL				
Name of Community: Fruit	land	Dat	te: 12-Jan-04		
Landcover: Rangeland		GPS Point Name			
WUI Condition: Rural	_				
Overall Wildfire Hazard Rating	: Low Hazard	Potential Fire Hazard Severity: Moderate Hazard			
Comments: Community is surrou	ınded by agricultural	lands, with very few native fuels in the vicinity.	Irrigation		
and ranching/agricultural practices maintain					
		Evaluator:	Homik		
	Points	Evaluation	Points		
A. Community Design		C. Topography			
1. Ingress / Egress		Predominant Slope			
Three or more primary roads1		≤ 8%1			
Two or more primary roads2	2	> 8% ≤ 20%4			
One Road3		> 20% ≤ 30%7	1		
One-way-in, one-way-out5		> 30%10			
2. Middle of Drives we seed		D. Roofing Material			
2. Width of Primary roads		-			
20 feet or more1 20 feet or less3	1	Class A Rated1 Class B Rated3	3		
∠o leet or less5		Class B Rated5 Class C Rated5			
3. Accessibility		Non-Rated Roofing material10			
Road grade 5% or less1		Tron trated freeing material 10			
Road grade 5% or more3	1	E. Fire Protection - Water Source			
Road grade 10% or more5	<u> </u>	500 GPM Hydrant within 1,000'1			
rtoda grade 1070 or more5		Hydrant farther than 1,000' or			
4. Secondary Road Terminus		draft site2	2		
Loop roads, cul-de-sacs with		Water Source within 20 minutes or			
outside turning radius of 45 feet		less, round trip5			
or greater1	2	Water source farther than 20			
Cul-de-sac turnaround radius		minutes, but less than 45 minutes7			
is less than 45 feet2		Water source farther than 45			
Dead-end roads 200 feet or		minutes round trip10			
less in length3					
Dead-end roads greater		F. Existing Building Construction	Materials		
than 200 feet long5		Non-combustible siding/deck1			
E. Austrian		Non-combustible siding	,		
5. Average lot size 10 acres or larger1		BUT a combustable deck5 Combustible siding and deck10	5		
≥ 1 acre, < 10 acres3		Combostible sloing and deck to			
≤ 1 acre5		G. Utilities			
3 1 acic3		All underground utilities1	3		
6. Street Signs		One underground, one above ground3			
Signs with names and numbers1		All above ground5			
Signs with names present2	2	ű			
No Street Signs5		H. Fire Protection Services			
ŭ		Good Rural Department Coverage1	2		
B. Vegetation		Limited Rural Department Coverage5			
Fire Prone Landscape Rating		No Rural Department Coverage10	-		
1 - 10 scale 1-10	9				
2. Defensible Space		Total Score For Community	36		
70% or more of site1		•			
≥ 30%, ≤ 70%3	1	Rating Scale Moderate Haza	ard 45-65		
≤ 30% of site5		High Haza			
		Extreme Haza			
Source: Urban Wildland Interface Code 2000, FEMA	i, version 1.0 August 200	01 with modification by Northwest Management, Inc.			

## **New Plymouth**



#### Wildfire Hazard Rating Form Payette County, Idaho Fire Mitigation Plan

Fire Mitigation Plan						
Name of Community: New Plym	outh		Date: 12-Jan-04			
Landcover: Rangeland		GPS Point Na	ne			
WUI Condition: Rural						
Overall Wildfire Hazard Rating: Lo	ow Hazard	Potential Fire Hazard Severity: Mode	rate Hazard			
Comments: Community is surrounde	ed by agricultural I	lands, with very few native fuels in the vicin	ity. Irrigation			
and ranching/agricultural practices maintain low	risk to communit	у				
		Evaluator:	Homik			
	Points		Points			
A. Community Design		C. Topography				
1. Ingress / Egress		1. Predominant Slope				
Three or more primary roads1		≥ 8%1 > 8% ≥ 20%4				
Two or more primary roads2 One Road3	2	> 0% ≤ 20%4 > 20% ≤ 30%7	1			
One-way-in, one-way-out5		> 30%10				
2. Width of Primary roads		D. Roofing Material				
20 feet or more1	<u> </u>	Class A Rated1				
20 feet or less3		Class B Rated3	3			
		Class C Rated5				
3. Accessibility		Non-Rated Roofing material10				
Road grade 5% or less1	<del></del>					
Road grade 5% or more3	1	E. Fire Protection - Water Source	e			
Road grade 10% or more5		500 GPM Hydrant within 1,000'1				
4. Cocondon Dood Torreiono		Hydrant farther than 1,000' or draft site2	2			
Secondary Road Terminus     Loop roads, cul-de-sacs with		Water Source within 20 minutes or				
outside turning radius of 45 feet		less, round trip5				
or greater1	2	Water source farther than 20				
Cul-de-sac turnaround radius		minutes, but less than 45 minutes7				
is less than 45 feet2		Water source farther than 45				
Dead-end roads 200 feet or		minutes round trip10				
less in length3						
Dead-end roads greater		F. Existing Building Construction	n Materials			
than 200 feet long5		Non-combustible siding/deck1				
		Non-combustible siding	_			
5. Average lot size		BUT a combustable deck5	5			
10 acres or larger1		Combustible siding and deck10				
≥ 1 acre, < 10 acres3	2	G. Utilities				
≤ 1 acre5		All underground utilities1	3			
6. Street Signs		One underground, one above ground3				
Signs with names and numbers1		All above ground5				
Signs with names present2	2	· ··· g	-			
No Street Signs5		H. Fire Protection Services				
· –		Good Rural Department Coverage1	2			
B. Vegetation		Limited Rural Department Coverage5				
Fire Prone Landscape Rating		No Rural Department Coverage10				
1 - 10 scale 1-10	9					
		T-1-10				
2. Defensible Space		Total Score For Community	36			
70% or more of site1		Dada Carla	1 45.05			
≥ 30%, ≤ 70%3 ≤ 30% of site5	1	Rating Scale Moderate H				
≥ 30 % of site5		High H Extreme H				
		223011011				

Source: Urban Wildland Interface Code 2000, FEMA, version 1.0 August 2001 with modification by Northwest Management, Inc.